

## 105.1 - Clinical Laboratory Materials (gas, liquid, and solid forms)

The following SRMs are for calibrating apparatus and validating analytical methods used in clinical and pathology laboratories. Additional information on the serum materials is given in table 105.2.

For further information see: [SP 260-36](#), [SP 260-72](#) and [SP 260-83](#)

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|       |                                       |                       | Purity/Constituent (mass fraction in %)   |
|-------|---------------------------------------|-----------------------|---|
| SRM   | Description                           | Unit Size             |   |
| 900   | Antiepilepsy Drug (4) Level           | set (4)               |   |
| 909c  | Human Serum                           | 3 bottles x 2 mL each | Cholesterol,<br>Glucose,<br>Creatinine,<br>Total Glycerides,<br>Urea,<br>Uric Acid,<br><i>Protein</i>   |
| 911c  | Cholesterol                           | 2 g                   | 99.2  |
| 912a  | Urea-Clinical                         | 25 g                  | 99.9  |
| 913a  | Uric Acid                             | 10 g                  | 99.6  |
| 914a  | Creatinine                            | 10 g                  | 99.7  |
| 915b  | Calcium Carbonate (Clinical Standard) | 20 g                  | <sup>w</sup> CaCO <sub>3</sub> 99.907<br><sup>w</sup> Ca 40.0104<br><sup>w</sup> CO <sub>3</sub> 59.923 |
| 916a  | Bilirubin                             | 100 mg                | 98.3  |
| 917c  | D-Glucose (Dextrose)                  | 50 g                  | 99.7  |
| 918b  | Potassium Chloride (Clinical)         | 30 g                  | <sup>w</sup> KCl 99.927<br><sup>w</sup> K 52.4121<br><sup>w</sup> Cl 47.5284                            |
| 919b  | Sodium Chloride (Clinical)            | 30 g                  | <sup>w</sup> NaCl 99.835<br><sup>w</sup> Cl <sup>-</sup> 60.564<br><sup>w</sup> Na <sup>+</sup> 39.2747 |
| 920   | D-Mannitol                            | 50 g                  | 99.8  |
| 921   | Cortisol (Hydrocortisone)             | 1 g                   | 98.9  |
| *924a | Lithium Carbonate (Clinical)          | 30 g                  | 99.867  |
| 925   | VMA (Clinical)                        | 1 g                   | 99.4  |
| 927d  | Bovine Serum Albumin (7%, solution)   | set (10)              | BSA Conc. 65.41 mg/L  |
| 928   | Lead Nitrate (Clinical)               | 30 g                  | 100.00  |
| 929a  | Magnesium Gluconate                   | 5 g                   | Mg Conc. 5.362  |
| 937   | Iron Metal (Clinical)                 | 50 g                  | 99.90   |
| 955c  | Toxic Metals in Caprine Blood         | 4 vials               | 4 Levels: Pb, As, Cd, Hg<br>1 Level: ethyl-, methyl-, and inorganic Hg species                          |

|      |                                    |                       | Purity/Constituent (mass fraction in %)                             |
|------|------------------------------------|-----------------------|---|
| SRM  | Description                        | Unit of Issue         |   |
| 956c | Electrolytes in Frozen Human Serum | 6 x 2.0 mL            | 3 Levels: Ca, Cl, Li, Mg, K, Na<br>3 Levels: <i>ionized calcium</i> |
| 965b | Glucose in Frozen Human Serum      | set (8) (2 each conc) | 4 Levels: glucose   |
| 967a | Creatinine in Frozen Human Serum   | set(4) (2 each conc)  | 2 Levels: creatinine  |

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|  |   |                        |   |
|--|---|------------------------|---|
| 968e   | Fat-Sol Vitamins, Carotenoids, and Cholesterol in Human Serum | set (3) (1 each conc.) | 3 Levels: vitamins, carotenoids, and cholesterol  |
| 970  | Ascorbic Acid in Frozen Human Serum                           | set (4) (2 each conc)  | 2 Levels: Total Ascorbic Acid   |
| 971  | Hormones in Frozen Human Serum                                | 2 x 5 mL               | cortisol, testosterone, progesterone  |
| 972  | Vitamin D in Human Serum                                      | set (4) (1 each level) | 4 Levels: 25-hydroxyvitamin D <sub>2</sub> , 25-hydroxyvitamin D <sub>3</sub> , 3-epi-25-hydroxyvitamin D <sub>3</sub> ,  |
| 998  | Angiotensin I (Human)   | 0.5 mg                 | 94.1  |
| 1400   | Bone Ash  | 50 g                   | 8 elements  |
| 1486   | Bone Meal   | 50 g                   | 8 elements  |
| 1595   | Tripalmitin   | 2 g                    | 99.5  |
| 1598a  | Inorganic Constituents in Animal Serum                        | 2 vials                | 12 elements<br><i>5 elements</i>  |
| 1599   | 2 Anticonvulsant Drugs  | set (4)                | 3 Levels: Valproic Acid, carbamazepine  |
| 1950   | Metabolites in Human Plasma                                   | 5 vials @ 1.0 mL each  | Cholesterol, Creatinine, Urea, Uric Acid, Homocysteine, Glucose, Total Glycerides, 3 Hormones, 8 Fatty Acids, 12 Amino Acids, 9 Vitamins, 4 Elements, 2 carotenoids, <i>Bilirubin, Selenium Species, Total protein, 6 PFCs, 19 Fatty Acids, 6 Amino Acids, 6 Vitamins, 3 Elements, 2 carotenoids,</i> |
| 1951b  | Lipids in Frozen Human Serum                                  | set (4) (2 each conc)  | 2 Levels: Total Cholesterol, Triglycerides only,<br>1 Level: Total Glycerides   |
| 1952a  | Cholesterol in Human Serum                                    | set (6) (2 each conc)  | 3 Levels: cholesterol   |
| 1955   | Homocysteine and Folate in Frozen Human Serum                 | set (3) (1 each conc)  | 3 Levels: Homocysteine, 5-Methyltetrahydrofolic Acid, <i>Folic Acid</i>   |
| 2366   | Cytomegalovirus (CMV) for DNA Measurements                    | 3 vials                | 3 Levels: cytomegalovirus (copies per micro liter)  |
| 2389a  | Amino Acids in 0.1 mol/L Hydrochloric Acid                    | 5 x 1.2 mL             | 17 Amino Acids  |
| 2670a  | Toxic Elements in Urine (Freeze-Dried)                        | set (4) (2 each conc)  | 2 Levels: 14 Elements<br><i>10 Elements</i>   |
| <b>Purity/Constituent (mass fraction in %)</b> |   |                        |   |
| <b>SRM</b>                                     | <b>Description</b>  | <b>Unit of Issue</b>   |   |
| 2921   | Human Cardiac Troponin Complex                                | 5x115 uL               | Cardiac Troponin<br><i>cTnI, cTnT, cTnC</i>   |

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|      |   |                           |  |
|------|---|---------------------------|--|
| 2972 | 25-Hydroxyvitamin D2 and D3 Calibration Solutions                     | 10 ampoules x 1.2 mL each | 25-hydroxyvitamin D <sub>2</sub><br>25-hydroxyvitamin D <sub>3</sub>                                 |
| 3950 | Vitamin B6 in Frozen Human Serum                                      | 2 vials, 1 level each     | 2 Levels: Vitamin B <sub>6</sub>   |
| 8323 | Yeast Protein Extract   | 3 vials x 0.2 mL          | <i>0.191 mg/mL</i>   |
| 8327 | Peptide Reference Material for Molecular Mass and Purity Measurements | set 3 (1 mg each)         | <i>Molecular Mass,<br/>Purity of Peptides,<br/>Amino Acid Sequence,<br/>for 3 synthetic peptides</i> |
| 8642 | FDA Saxitoxin Dihydrochloride Solution                                | 10 x 1.2 mL               | <i>0.0103</i>  |

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